

# FUEL SYSTEM

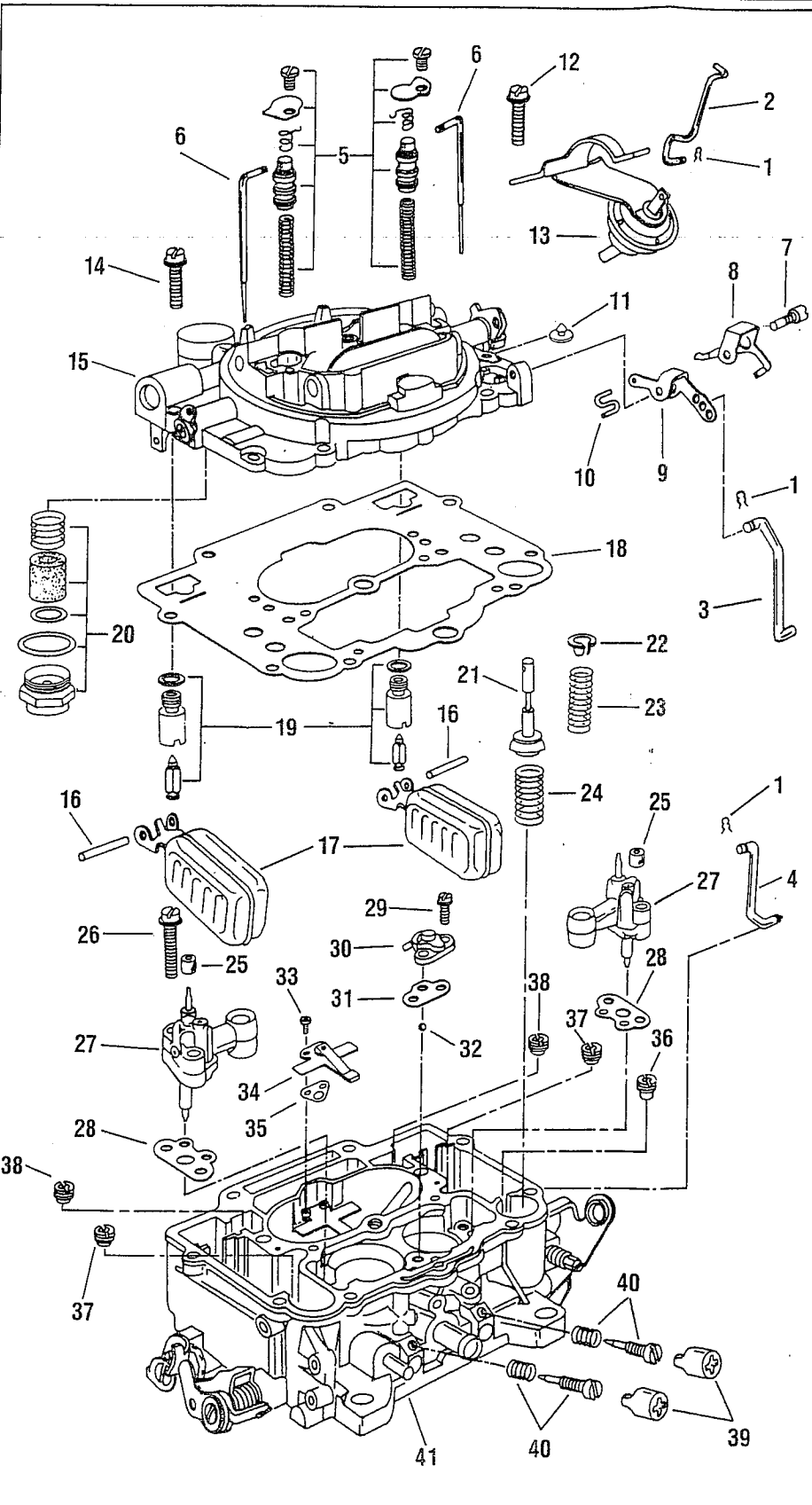
## SERVICE INSTRUCTION WORKSHEET

GF3411-5

### TO REPAIR

CARTER CARBURETOR

4 BARREL—Model AVS



1. Carefully read the text in the following pages to become familiar with the contents of this worksheet before performing carburetor overhaul.
2. The exploded view is typical of the model carburetor this kit will service. The view may differ slightly from the actual carburetor being overhauled.
3. Use the exploded view as a guide. The numerical sequence of the parts list may generally be followed to disassemble the carburetor far enough to permit cleaning and inspection.
4. Parts list shown DOES NOT reflect the contents of the kit.
5. Kit may contain extra parts intended for other carburetors within this group. Substitute identical replacement parts for original worn parts found in carburetor.

#### CLEANING

Cleaning must be done with carburetor disassembled. Use spray cleaner and a stiff bristle brush to remove dirt and carbon deposits. Do not use abrasives and wires to clean parts and passageways. Wash off in suitable solvent, and clear all passageways with compressed air. **Caution:** When cleaning with solvent do not soak or spray parts containing rubber, leather, plastic and electrical components.

#### REMOVAL & INSTALLATION NOTES

1. Cover opening on intake manifold after carburetor is removed.
2. When removing idle vent valve (11), be careful not to bend spring arm.
3. When removing main jets (37 & 38) be sure not to mix them. Primary jets have larger holes.
4. Before removing idle mixture adj. screws (40), turn in until lightly seated counting number of turns. Record for proper installation. **IMPORTANT:** Early models have a single idle mixture adj. screw with a LEFT HAND thread.
5. Install parts and components in reverse order of removal.
6. Remove retainer (22) and spring (23) from old pump plunger and install onto new pump plunger (21).
7. ... paper sleeve (if available) a few minutes to
8. When installing idle mixture adj. screw (40), turn in until lightly seated, then back out number of turns recorded earlier.

#### PARTS LIST

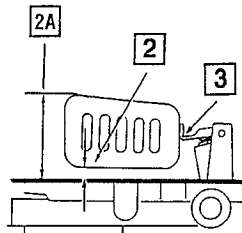
1. Cotter pin
2. Link, vacuum break connector
3. Rod, pump
4. Rod, fast idle
5. Step-up piston assembly
6. Rod, step-up
7. Screw, pump arm
8. Arm, idle vent
9. Arm, pump
10. Link, pump connector
11. Valve, idle vent
12. Screw, vacuum break bracket (2)
13. Vacuum break assembly
14. Screw, air horn (6)
15. Air horn assembly
16. Pin, float hinge
17. Float assembly
18. Gasket, air horn
19. Needle & seat assembly
20. Fitting & filter assembly, fuel inlet
21. Pump plunger
22. Retainer, pump spring
23. Spring, pump
24. Spring, pump return
25. Sleeve, venturi vent
26. Screw, primary venturi (4)
27. Primary venturi assembly
28. Gasket, primary venturi
29. Screw, pump jet housing (2)
30. Pump jet housing assembly
31. Gasket, housing
32. Ball or needle, pump discharge
33. Screw, idle compensator\* (2)
34. Idle compensator\*
35. Gasket, idle compensator\*
36. Pump intake check
37. Jet, primary main
38. Jet, secondary main
39. Cap, idle limiter\*
40. Screw, idle mixture adj.
41. Throttle body & fuel bowl assy.

☞ PARTS LIST SHOWN DOES NOT REFLECT THE CONTENTS OF THE KIT.

## ADJUSTMENT DATA

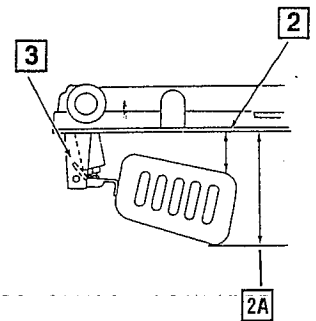
**FIG. 1  
FLOAT LEVEL ADJUSTMENT**

1. Invert air horn assembly with gasket in place.
2. Measure distance from gasket to top of each float at toe end.
- 2A. 1966 Chevy, measure from gasket to bottom of each float at toe end.
3. To adjust, bend float lever as shown.



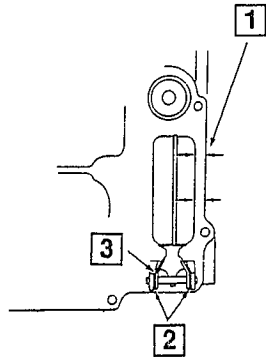
**FIG. 2  
FLOAT DROP ADJUSTMENT**

1. With air horn assembly held upright and level, allow float to hang freely. Gasket in place.
2. Measure distance from gasket to top of each float at toe end.
- 2A. 1966 Chevy, measure from gasket to bottom of each float at toe end.
3. To adjust, bend float tang.



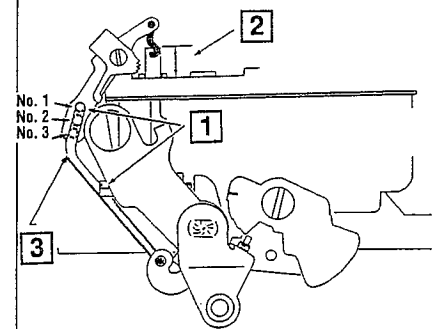
**FIG. 3  
FLOAT ALIGNMENT**

1. Check that sides of floats are parallel with sides of air horn.
2. Check clearance between float lever arms and air horn lugs. Float should move freely.
3. To adjust, bend float lever arms.



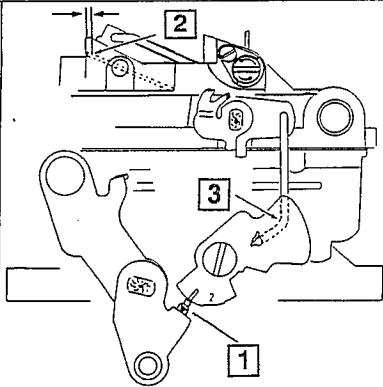
**FIG. 4  
PUMP ROD ADJUSTMENT**

1. Place pump rod in hole No. 2 of pump arm unless otherwise specified. Back out throttle stop screw to completely close throttle valves.
2. Measure distance from top of air horn to top of pump plunger stem.
3. To adjust, bend pump rod at elbow.



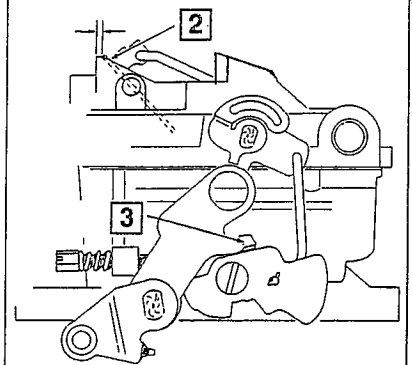
**FIG. 5  
FAST IDLE LINKAGE ADJUSTMENT**

1. Place fast idle screw on 2nd step of cam against high step. 1966 models, align screw with index mark on cam.
2. Measure 1/16" clearance between upper edge of choke valve and air horn wall. 1966 models, choke valve should be closed after step 1.
3. To adjust, bend choke rod at elbow.



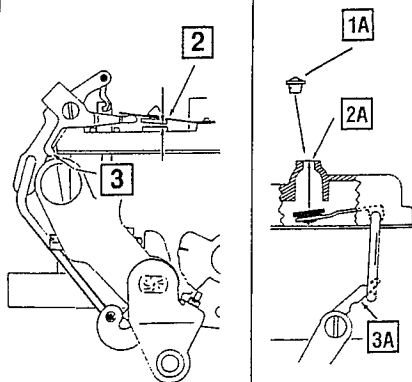
**FIG. 6  
UNLOADER ADJUSTMENT**

1. Hold throttle valves wide open.
2. Close choke valve as far as possible without forcing, and measure distance between upper edge of choke valve and air horn wall using a gauge or drill bit.
3. To adjust, bend tang on throttle lever.



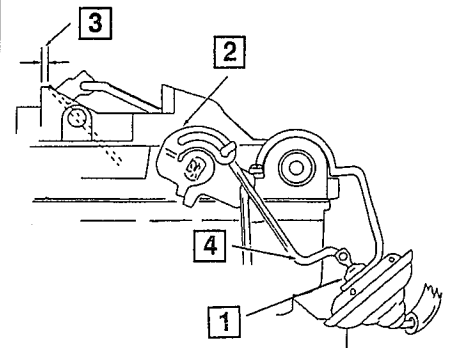
**FIG. 7  
IDLE VENT VALVE ADJUSTMENT**

1. Keep throttle valves closed to curb idle (all models).
- 1A. Remove plug from air horn where applicable.
2. Measure distance between lower side of idle vent valve and valve seat.
- 2A. Measure carefully from vent valve to edge of hole.
3. To adjust, bend tang on vapor vent arm.
- 3A. To adjust, bend operating lever. Replace plug when done.

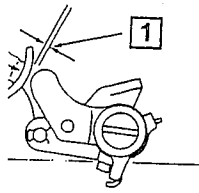


**FIG. 8  
VACUUM BREAK LINKAGE ADJUSTMENT**

1. Push diaphragm plunger inward until it's fully seated. DO NOT push on stem.
2. Apply light pressure against choke valve shaft lever to close choke valve as far as possible WITHOUT pulling diaphragm off its seat.
3. Measure distance between upper edge of choke valve and air horn wall using a gauge or drill bit.
4. If adjustment is needed, remove connector link and bend at elbow as shown.

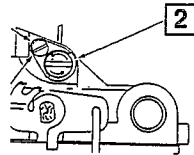
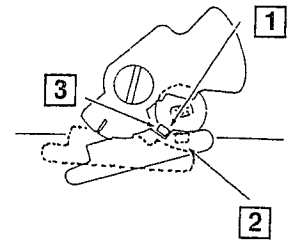


## ADJUSTMENT DATA (Cont'd)



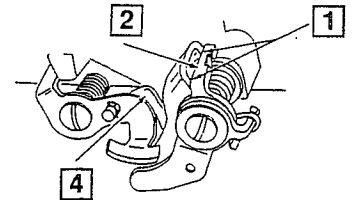
**FIG. 10**  
**SECONDARY THROTTLE**  
**LOCKOUT ADJUSTMENT**

1. Open throttle valves and manually open, and then close, choke valve. Lockout tang must engage lockout dog.
2. Open choke valve. Lockout dog should be free of lockout tang.
3. To adjust, bend lockout tang.



**FIG. 12**  
**SECONDARY THROTTLE**  
**OPENING ADJUSTMENT**

1. Pickup lever must contact both points of loose lever on primary throttle shaft.
2. To adjust, bend pickup lever.
3. Primary and secondary throttle valves should reach wide open position at the same time.
4. To adjust, bend link as necessary.



## SPECIFICATION CHART

Year	Application	Float Level	Float Drop	Pump Rod	Unloader	Idle Vent	Vacuum Break	Sec.* Air Valve	Slow** Idle	Fast Idle
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### CHRYSLER MOTORS — SPECIFICATION I.D.-A

1968	340 Eng.—A/T	7/32	23/32	7/16	1/4	1/8	5/64	2	650	1400
	—M/T	7/32	23/32	7/16	1/4	1/8	3/16	2	700	1700
	383 Eng.—A/T	5/16	13/16	7/16	1/4	1/8	3/32	2	650	1600
	—M/T	5/16	13/16	7/16	1/4	1/8	3/16	2	650	1600
	440 Eng.—A/T	7/32	23/32	7/16	1/4	1/8	5/32	2	650	1400
	—M/T	7/32	23/32	7/16	1/4	1/8	3/16	2	650	1600

### CHEVROLET — SPECIFICATION I.D.-B

1966	327 Eng.	1-15/32	2"	33/64 <sup>1</sup>	11/64	1/32	1/8	2-1/4	450-500 <sup>2</sup>	2200
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### CHRIS-CRAFT

	307, 327, 350 Eng.	11/64	23/32	1/2	11/64	—	—	2	500	—
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### CHRYSLER MOTORS — SPECIFICATION I.D.-C

1971	383 Eng.—A/T	5/16	23/32	9/16	1/4	3/4	5/64	2-1/2	800	1800
	440 Eng.—Incl. Hi.-Perf.	7/32	23/32	7/16	1/4	3/4	5/32	2-1/2	750 <sup>3</sup>	1600 <sup>3</sup>
1970	340 Eng.—A/T	7/32	23/32	7/16	1/4	1/8 <sup>4</sup>	5/64	2	900	2000
	—M/T	7/32	23/32	7/16	1/4	1/8 <sup>4</sup>	7/64	2	950	2000
	383 Eng.—A/T	5/16	13/16	7/16	1/4	1/8 <sup>4</sup>	3/32	2	700	1700
	440 Eng.—w/C.A.S.	7/32	23/32	7/16	1/4	1/8	5/32	2	800 <sup>5</sup>	1800 <sup>5</sup>
1969	—w/E.C.S.	7/32	23/32	7/16	1/4	3/4	5/32	2	800 <sup>5</sup>	1800 <sup>5</sup>
	340 Eng.—A/T	7/32	23/32	7/16	1/4	1/8	5/64	2	700	1700
	—M/T	7/32	23/32	7/16	1/4	1/8	7/64	2	750	1700
	383 Eng.—A/T	5/16	13/16	7/16	1/4	1/8	5/64	2	650	1700
	—M/T	5/16	13/16	7/16	1/4	1/8	7/64	2	700	1700
	440 Eng.—A/T	7/32	23/32	7/16	1/4	1/8	7/64	2	650	1700
—M/T	7/32	23/32	7/16	1/4	1/8	5/32	2	700	1700	

#### FOOTNOTES:

- \* Number of turns.
- \*\* Transmission in Neutral unless otherwise specified.
- <sup>1</sup> Pump rod in hole no. 1.
- <sup>2</sup> A/T in "Drive" position.
- <sup>3</sup> Hi-Perf. Eng. with A/T, set slow idle to 900 RPM, and fast idle to 2000 RPM;
- with M/T, set slow idle to 900 RPM and fast idle to 1800 RPM.
- <sup>4</sup> 340, 383 Eng. with E.C.S. set 3/4".
- <sup>5</sup> Models with M/T set 900 & 2000 respectively.

#### ABBREVIATIONS:

A/T	Automatic Transmission
C.A.S.	Cleaner Air System
E.C.S.	Evaporation Control System
M/T	Manual Transmission